

claim 43: page 27, lines 15-18;

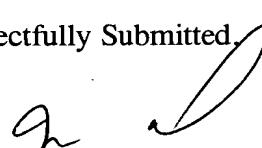
claim 44: page 27, lines 4-5;

claim 45: page 26, line 29 through page 27, line 3; and

claim 46: page 5, lines 18-19 and claim 31 as originally filed.

Applicants believe that the application is in condition for allowance and favorable action thereon is respectfully solicited.

Respectfully Submitted,

  
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FEDERAL BUREAU OF INVESTIGATION  
U. S. DEPARTMENT OF JUSTICE

29. (Amended) A method of producing L- $\beta$ -lysine, comprising [the steps of]:

- (a) culturing a host cell comprising an expression vector that encodes lysine 2,3-aminomutase in the presence of L-lysine, wherein the cultured host cell expresses lysine 2,3-aminomutase, and
- (b) isolating L- $\beta$ -lysine from the cultured host cells.

30. (Amended) A method of producing L- $\beta$ -lysine, comprising [the steps of]:

- (a) incubating L-lysine in a solution containing purified lysine 2,3-aminomutase, said solution containing all cofactors required for lysine 2,3-aminomutase activity; and
- (b) isolating L- $\beta$ -lysine from the incubation solution.

31. (Amended) The method of claim 30, wherein the lysine 2,3-aminomutase has an amino acid sequence selected from the group consisting of (i) SEQ ID NO:4, (ii) SEQ ID NO:6, (iii) SEQ ID NO:8, (iv) SEQ ID NO:10, (v) SEQ ID NO:12, (vi) SEQ ID NO:14, [and] (vii) SEQ ID NO:16, (viii) SEQ ID NO:2 and [(viii)] (ix) a conservative amino acid variant of any of SEQ ID NOs:2, 4, 6, 8, 10, 12, 14, or 16.